

Based upon April Operations Study - 90% Exceedance Hydrology

Assumptions: SWP Allocation - 65%; NOD Purchases - 160 TAF; SOD Purchases - 84 TAF; MWD SS - 45 TAF

[illegible]

EWA Asset Acquisition in SWP San Luis																	
2	C/O	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
E/I Relaxation																	0
EWA share of SWP gain																	0
Project Pumping to reduce EWA debt																	0
JPOD using excess flows																	0
JPOD using NOD storage																	0
Xfer NOD - Sacramento River ²											19 ^{4,5}	19 ^{4,5}	19 ^{4,5}				57
Xfer NOD - San Joaquin River ²																	0
SOD SWP Surface/GW Purchases										30 ⁶	30 ⁶	24 ⁶					84
Exchange of EWA assets																	0
Groundwater pumping SOD																	0
Exchange from CVP to SWP in SL																	0
Total Monthly EWA Assets		0	0	0	0	0	0	0	0	30	49	43	19	0	0	0	141

EWA Asset Acquisition in CVP San Luis																	
3	C/O	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
E/I Relaxation																	0
Project Pumping to reduce EWA debt							0.202										0
JPOD using excess flows																	0
JPOD using NOD storage																	0
Xfer NOD - Sacramento River ²											24 ^{4 5}	24 ^{4 5}	24 ^{4 5}				71
Xfer NOD - San Joaquin River ²																	0
SOD CVP Surface/GW purchases																	0
Exchange of EWA assets																	0
Groundwater pumping																	0
Exchange from SWP to CVP in SL																	0
Total Monthly EWA Assets	0	0	0	0	0	0	0	0	0	0	24	24	24	0	0	0	72

[illegible]

EWA End-of-Month Incremental Storage Changes																	
5	C/O	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
SWP in SL (without Source Shift)	0.057	0	0	0	0	0	0	-12	-80	-20	49	43	19	0	0	0	-2
CVP in SL	-0.202	0.000	0.000	0.000	0.000	0.000	0.202	0	-71	0	24	24	24	0	0	0	0
NOD Storage	0.398	0	0	0	0	-0.398	0	0	0	160	-53	-53	-53	0	0	0	0
SOD Storage (non-S.L.)	0.000	0	0	0	0	0	0	0	84	-30	-30	-24	0	0	0	0	0
Total Incremental Storage Changes	0.253	0	0	0	0	0	0	-12	-68	110	-11	-11	-11	0	0	0	-2

EWA End-of-Month Storage Balance at Various Sites																	
6	C/O	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
SWP in SL (without Source Shift)	0.057	0	0	0	0	0	0	-12	-93	-113	-64	-21	-2	-2	-2	-2	
CVP SL	-0.202	-0.202	-0.202	-0.202	-0.202	-0.202	0	0	-71	-71	-48	-24	0	0	0	0	
NOD Storage	0.398	0.398	0.398	0.398	0.398	0.000	0	0	0	160	107	53	0	0	0	0	
SOD Storage (non-S.L.)	0.000	0	0	0	0	0	0	0	84	54	24	0	0	0	0	0	
EWA Asset Balance	0.253	0	0	0	0	0	0	-12	-80	30	19	9	-2	-2	-2	-2	

San Luis Reservoir Storage Conditions																
7	C/O	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Total Storage (base case) ⁹		650	788	1010	1665	1879	2020	1781	1538	1005	578	298	320	335	466	793
Encroachment																
Total Storage (EWA case)		650	788	1010	1664	1878	2020	1768	1374	821	466	253	318	332	464	791
MWD Source Shifting											20	25	-11	-11	-11	-11
Storage (with MWD source shifting)		650	788	1010	1664	1878	2020	1768	1374	821	466	298	351	355	475	791

⁰ 2004 NOD Purchases = 65(YCWA) + 10(PCWA). YCWA has firm 65 taf; can exercise options for an additional 120 taf. PCWA has firm 10 taf; can exercise options for an additional 10 taf.

¹ Aqueduct conveyance and evaporation losses are not included.

² Carriage water loss applies to water transfers from the Sacramento River (assumed to be 20% until modeling results indicate otherwise);

a 10% conveyance loss applies to water transfers from the San Joaquin River. Carriage water loss in WY 2003 was 0%.

³ The SWP spilled ~ 400 af of EWA water stored in Oroville during flood control operations.

⁴ 2004 YCWA Transfer (Joint place of use) ⁵ 2004 PCWA Transfer (Joint place of use)

⁶ 2004 SOD Transfers - 85 TAF from KCWA (SWP place of use)

⁷ The SWP cost for VAMP and its shoulders are estimated to be 33 TAF and 60 TAF, respectively (based upon the SWP April studies).

⁸The CVP cost for "shoulders" on VAMP is estimated to be 71 TAE (based upon the CVP April B2 studies).

⁹ Based upon DWR's 90% (75% Fall) allocation study (dated 4/2004) and the USBR's "April90b2" study (dated 4/14/04).

WY 2003/2004 EWA Accounting Summary

Based upon April Operations Study - 50% Exceedance Hydrology

Assumptions: SWP Allocation - 74%; NOD Purchases - 94 TAF; SOD Purchases - 160 TAF; MWD SS - 34 TAF

EWA NOD and SOD Storage (+ = Acquisitions) and (- = Releases)																	
1	C/O	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
NOD (Oroville) ⁰	0.398					-0.398 ³											0
NOD (YCWA/PCWA)										94 ^{4,5}	-31 ^{4,5}	-31 ^{4,5}	-31 ^{4,5}				0
Carriage Water Loss ²											-6	-6	-6				-19
SOD (KCWA/SCVWD)									160 ⁶	-50 ⁶	-60 ⁶	-50 ⁶					0
SOD (MWD)																	0

EWA Asset Acquisition in SWP San Luis ¹																	
2	C/O	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
E/I Relaxation																	0
EWA share of SWP gain																	0
Project Pumping to reduce EWA debt																	0
JPOD using excess flows																	0
JPOD using NOD storage																	0
Xfer NOD - Sacramento River ²											1 ^{4,5}	6 ^{4,5}	6 ^{4,5}				14
Xfer NOD - San Joaquin River ²																	0
SOD SWP Surface/GW Purchases										50 ⁶	50 ⁶	50 ⁶					150
Exchange of EWA assets																	0
Groundwater pumping SOD																	0
Exchange from CVP to SWP in SL																	0
Total Monthly EWA Assets		0	0	0	0	0	0	0	0	50	51	56	6	0	0	0	164

EWA Asset Acquisition in CVP San Luis																	
3	C/O	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
E/I Relaxation																	0
Project Pumping to reduce EWA debt							0.202										0
JPOD using excess flows																	0
JPOD using NOD storage											24 ^{4,5}	19 ^{4,5}	19 ^{4,5}				61
Xfer NOD - Sacramento River ²																	0
Xfer NOD - San Joaquin River ²																	0
SOD CVP Surface/GW purchases											10 ⁶						10
Exchange of EWA assets																	0
Groundwater pumping																	0
Exchange from SWP to CVP in SL																	0
Total Monthly EWA Assets	0	0	0	0	0	0	0	0	0	0	34	19	19	0	0	0	72

EWA Expenditures at the Export Pumps																	
4	C/O	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
SWP export cuts								-23 ⁷	-100 ⁷	-50							-173
CVP export cuts									-71 ⁸								-71
Total Expenditures	0	0	0	0	0	0	0	-23	-171	-50	0	0	0	0	0	0	-244

EWA End-of-Month Incremental Storage Changes																	
5	C/O	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
SWP in SL (without Source Shift)	0.057	0	0	0	0	0	0	-23	-100	0	51	56	6	0	0	0	-9
CVP in SL	-0.202	0.000	0.000	0.000	0.000	0.000	0.202	0	-71	0	34	19	19	0	0	0	0
NOD Storage	0.398	0	0	0	0	-0.398	0	0	0	94	-31	-31	-31	0	0	0	0
SOD Storage (non-S.L.)	0.000	0	0	0	0	0	0	0	160	-50	-60	-50	0	0	0	0	0
Total Incremental Storage Changes	0.253	0	0	0	0	0	0	-23	-11	44	-6	-6	-6	0	0	0	-9

EWA End-of-Month Storage Balance at Various Sites																	
6	C/O	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
SWP in SL (without Source Shift)	0.057	0	0	0	0	0	0	-23	-123	-123	-72	-16	-9	-9	-9	-9	-9
CVP SL	-0.202	-0.202	-0.202	-0.202	-0.202	-0.202	0	0	-71	-71	-38	-19	0	0	0	0	0
NOD Storage	0.398	0.398	0.398	0.398	0.398	0.000	0	0	0	94	63	31	0	0	0	0	0
SOD Storage (non-S.L.)	0.000	0	0	0	0	0	0	0	160	110	50	0	0	0	0	0	0
EWA Asset Balance	0.253	0	0	0	0	0	0	-23	-34	9	3	-3	-9	-9	-9	-9	-9

San Luis Reservoir Storage Conditions																	
7	C/O	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Total Storage (base case) ⁹		650	788	1010	1665	1879	2020	1791	1507	913	485	207	250	193	293	650	
Encroachment																	
Total Storage (EWA case)		650	788 0	1010	1664	1878	2020	1768	1312	719	375	173	241	184	283	640	
MWD Source Shifting											9	25	-9	-9	-9	-9	
Storage (with MWD source shifting)		650	788	1010	1664	1878	2020	1768	1312	719	384	207	266	201	292	640	

⁰ 2004 NOD Purchases = 65(YCWA) + 10(PCWA). YCWA has firm 65 taf; can exercise options for an additional 120 taf. PCWA has firm 10 taf; can exercise options for an additional 10 taf.

¹ Aqueduct conveyance and evaporation losses are not included.

² Carriage water loss applies to water transfers from the Sacramento River (assumed to be 20% until modeling results indicates otherwise);

a 10% conveyance loss applies to water transfers from the San Joaquin River. Carriage water loss in WY 2003 was 0%.

³ The SWP spilled ~ 400 af of EWA water stored in Oroville during flood control operations.

⁴ 2004 YCWA Transfer (Joint place of use) ⁵ 2004 PCWA Transfer (Joint place of use)

⁶ 2004 SOD Transfers - 125 TAF from KCWA (SWP place of use); 25 TAF from MWD (SWP place of use); and 10 TAF from SCVWD (CVP place of use)

⁷ The SWP cost for VAMP and its shoulders are estimated to be 47 TAF and 76 TAF, respectively (based upon the SWP April studies).

⁸ The CVP cost for "shoulders" on VAMP is estimated to be 71 TAF (based upon the CVP April B2 studies).

⁹ Based upon DWR's 50% (75% Fall) allocation study (dated 4/2004).